DETAILED ACTION

Response to Amendment

1.   Applicant's amendment was received on 7/29/2008, and has been entered and made of record. Currently, claims 1-20 are pending.

Response to Remark/Arguments

2.   Applicant's arguments with respect to Claims 1-20 have been fully considered but are not persuasive.

Regarding arguments of Claims 1-5, (page 6, Remarks):

Applicant's arguments, "**The Office Action asserts, with respect to claim 1, that Alattar et al. discloses an image database of one or more advertising images stored on a computer-readable medium. Office Action, page 3, first paragraph (citing Figure 6, column 10, lines 10-36 and column 10, line 50 through column 11, line 23). However, Applicant notes that the alleged image database is actually a database used to relate identifiers contained in the watermark to more detailed information, and does not contain the image signal from which the identifier was extracted.** *See, e.g.,* **Alattar et al., column 10, lines 20-24 ("For example, the client extracts the watermark payload and forwards the ID to the database over the Internet using standard TCP/IP. In response, the database looks up the content information associated with that ID in the database and returns it to the client."). This is not an image database, as it only relates identifiers extracted from Alattar et al.'s watermark payload to information associated with those identifiers**", third paragraph, Page 6, Remarks.

In re, the Examiner respectfully disagrees with the conclusion. Alattar et al' 304 discloses examples of a relationship of ID structure, e.g. content ID, distribution ID and Time-Date ID and a database for an image used in an advertisement, e.g. magazine advertisement, on-line retails of selling music including magazine title, page number, or version of image, etc. (col 10, lines 50-62), and database for digital song, album, music publisher, etc, (col 10, line 63 to col 11, line 4). Furthermore, Alattar et al, 304 disclose another example of database used in private business, e.g. embedding watermark into still image or video captured by camera (col 11, lines 5-23). The disclosure of col 10, lines 10-36 presents background of the invention and as pointed out by Alattar et al, 304, that further information of using ID to the database over the internet is available in US Pat. NO. 6,505,160 (col 10, lines 10-36). In addition, Alattar et al' 304 discloses that methods, processes and systems described are implemented in a programmable computer (col 21, lines 55-65). Thus, the claim limitation of database of one or more advertising images stored on a computer-readable medium is anticipated by Alattar et al, 304.

Applicant further argues, "**The Office Action asserts that Alattar et al. discloses that each image of the database has a plurality of associated layers of metadata and that the computer system is adapted to embed each associated layer of metadata as one or more computer-readable data values in a separate steganographic sub-watermark of a steganographic watermark of the advertising image. As noted in the preceding paragraph, there is no database of Alattar et al.**

associating layers of metadata with advertising images as recited in Applicant's claim 1", last

paragraph, page 6-7, Remarks.

In re, the examiner respectfully disagrees. As discussed above, Alattar et al's

examples of database of image which includes magazine, advertisement, still image or

video, and music, etc. involving multiple layers of watermark, in which each layer

include different metadata, thus forming metadata layers with watermarking (col 8, lines

13-16). Hence, the claim limitation of each image having a plurality of associated layers

of metadata is anticipated by Alattar et al, 304.

Applicant continues to argue, "**Applicant further notes that claim 1 is amended to
recite, in part, "wherein the computer system is adapted to embed each associated layer of
metadata as one or more computer-readable
data values in a separate steganographic sub-watermark of a composite steganographic
watermark of the advertising image." Applicant contends that Alattar et al. teaches intentional
separation of its watermarks for different layers of information, and not the creation of a
composite steganographic watermark. *See, e.g.,* Alattar et al., column 6, lines 15-20 ("In one
implementation of layered watermarks for video, different watermark layers are embedded in
discrete, interleaved time slots of the video. At each stage in the distribution of the video, the
entity handling the video embeds its watermark identifier in the time slot allocated to that type of
entity."); and column 8, lines 4-9 ("Finally, for images and video, the layers may be provided
spatially. In this case, each frame or image is broken into tiles, e.g., square blocks of pixels, where
tiles of the image or frame include various watermark layers and/or synchronization signals, if
required. Thus, each tile or each set of tiles can have a different watermark layer."). Applicant thus**

contends that Alattar et al. teaches away from a composite steganographic watermark as recited
in claim 1", First paragraph, page 7, Remarks.

In re, the examiner respectfully disagrees. As applicant admitted that Alattar et al'
304 teach "different watermark layers are embedded in discrete, interleaved time slots
of the video" in col 6, lines 15-20. As disclosed in Alattar et al' 304 reference,
"watermark layers" together becomes a composite watermark layer and each layer of
watermark layers is a sub-watermark layer. Alattar et al' 304 disclose an invention
aspect for the concept of "composite watermark layer" and "sub-watermark layer" in col
1, lines 55-65 and again in col 22, lines 5-20. Thus, Alattar et al, 304 reference did not
teach away from a composite steganographic watermark, rather, the claim limitation of
"a separate steganographic sub-watermark of a composite steganographic watermark"
is anticipated by Alattar et al' 304. As a whole of Alattar et al's 304 disclosure, every
limitation of Claim 1 of the instant invention is taught by Alattar et al' 304. Thus, it
concludes that as discussed in the Office Action dated 4/14/2008, the rejection under 35
U.S.C. 102 (e) is proper. Because of the dependency of Claims 2-5 to Claim 1, and
these claims do not have independent utility for allowing, Claims 2-5 were also properly
rejected under 102(e) as discussed in the Office Action.

Regarding Claims 6-11, (page 8, Remarks):

Claim 6 is a method claim which has identical features as Claim 1. Thus, the
above rejection rational is also applied to Claim 6 and its dependent claims 7-11.

Regarding Claims 12-16, (page 8, Remarks):

Claim 12 is a method claim which has similar features as Claim 1. Thus, the above rejection rational is also applied to Claim 12 and its dependent claims 13-16.

Regarding Claims 17-20, (page 8, Remarks):

Claim 17 is a computer-readable medium claim which has similar features as claim 1. Thus, the above rejection rational is also applied to Claim 17 and its dependent claims 18-20.

In addition, <u>claims 1-16 are found non-statutory invention</u> and are rejected under 35 U.S.C. 101. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns,* 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The examiner also references the applicant to the claims rejection section below for the explanation on how the prior art references read on the amended claims.

Drawings

3.   The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following must be shown or the feature(s) canceled from the claim(s):

a) claim 1, "A computer system";

No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1 .l21 (d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5.   Claims 1-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows:

Claim 1 is directed to a computer system which comprising an image database. The invention in Claim 1 does not fall within one of four statutory categories of "any new and useful process, machine, manufacture or composition of matter", because "an image database" is a non-functional descriptive material. "an image database" stored in a computer system does not transform an article object or physical object to a different state or thing (MPEP 2106). Furthermore, "an image database" is neither a process, nor a machine, nor a manufacture or composition of matter. Thus, the invention of claim 1 is directed to a non-statutory subject matter. Claims 2-5 are dependent claims to claim 1 and are rejected under 35 U.S.C. 101 because of their dependence to Claim 1.

Claim 6 is directed to a method (interpreted as a process claim) of operating a database. Claim limitations recite, "comprising: <u>selecting</u> an advertising image; and <u>selecting</u> two or more layers of metadata associated with the selected image and embedding each associated layer of metadata in a separate computer-readable steganographic sub-watermark of a composite steganographic watermark of the advertising image" (emphasis added). The invention in Claim 6 does not fall within one of four statutory categories of "any new and useful process, machine, manufacture or composition of matter" because the method (or process) is neither tied to a particular machine or apparatus of the statutory utility, nor transforming the underlying subject

matter (such as an article or materials) to a different state or thing. Claims 7-11 are

dependent claims and are rejected under 35 U.S.C. 101 because their dependency to

Claim 6.

Claim 12 is directed to a method (process) of operating an advertising image

repository. Claim limitations recite, "comprising: selecting an advertising image and two

or more layers of metadata associated with the selected image from the advertising

image repository; and embedding each associated layer of metadata in one or more

digital data values encoded in a separate steganographic sub-watermark of a composite

steganographic watermark of the advertising image". The invention of Claim 12 does

not fall within one of four statutory categories as discussed above. Claim 13-16 are

dependent claims and are rejected under 35 U.S.C. 101 because their dependency to

Claim 16.

Claim Rejections - 35 USC § 112

6.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of
> making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the
> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
> set forth the best mode contemplated by the inventor of carrying out his invention.

7.   Claims 1-5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply

with the written description requirement. The claim(s) contains subject matter which

was not described in the specification in such a way as to reasonably convey to one

skilled in the relevant art that the inventor(s), at the time the application was filed, had

possession of the claimed invention. With respect to claim 1, recites,

> "<u>A computer system</u>, comprising: an image database of one or more advertising
>
> images stored on a computer-readable medium, each image having a plurality of
>
> associated layers of metadata, wherein the computer system is adapted to
>
> embed each associated layer of metadata as one or more computer-readable
>
> data values in a separate steganographic sub-watermark of a composite
>
> steganographic watermark of the advertising image", (emphasis added by the
>
> examiner).

There is no detail description of a computer system disclosed in the original

disclosure. It lacks of adequacy disclosure to enable a person of ordinary skill in the art

to make and use the claimed invention. For the computer system and computer

program product claim, both computer hardware and software must be sufficiently

disclosed (MPEP 2161.01).

"The written description's requirement implements the principle that a paten must

describe the technology that is sought to be patented; the requirement serves both to

satisfy the inventor's obligation to disclose the technologic knowledge upon which the

paten is based, and to demonstrate that the patentee was in possession of the invention

that is claimed" and "to satisfy the written description requirement, a patent specification

must describe the claimed invention in sufficient detail that one skilled in the art can

reasonably concluded that the inventor had possession of the claimed invention", see

MPEP 2163.

Claims 2-5 are rejected under 35 U.S.C. 112, first paragraph because of their

dependency to Claim 1.

Claim Rejections - 35 USC § 102

8.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9.   Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Alattar

et al (Alattar) (US 7,020,304).

Regarding claim 1.

Alattar discloses an image database (**e.g. database of image which includes

magazine, advertisement, still image or video, and music, etc, see col 10, line 50

to col 11, line 23**) of one or more advertising images (**e.g. col 10, line 50 through col

11, line 23**) stored on a computer-readable medium (**e.g. tangible medium, col 22,

lines 63-64**), each image having a plurality of associated layers of metadata (**e.g.

Alattar et al's examples of database of image which includes magazine,**

advertisement, still image or video, and music, etc. involving multiple layers of
watermark, in which each layer include different metadata, thus layer includes
metadata is a also a metadata layer, col 8, lines 12-54), wherein the computer
system is adapted to embed each associated layer of metadata as one or more
computer-readable data values (e.g. embedding calibration signal and ID, etc.) in a
separate steganographic sub- watermark of a composite steganographic watermark of
the advertising image (e.g. As disclosed in Alattar et al' 304 reference, "watermark
layers" together becomes a composite watermark layer and each layer of
watermark layers is a sub-watermark layer. Alattar et al' 304 disclose an invention
aspect for the concept of "composite watermark layer" and "sub-watermark
layer" in col 1, lines 55-65 and again in col 22, lines 5-20).

Regarding claim 2, in accordance with claim 1.

Alattar discloses wherein the database is adapted to associate the layers of
metadata with each image dynamically (e.g. watermark layers each includes
different metadata and thus becoming metadata layers, which activate a link to a
copyright database, to an asset management database to a metadata database,
etc. col 8, lines 13-36).

Regarding claim 3, in accordance with claim 2.

Alattar discloses wherein the database is adapted to dynamically associate the
layers of metadata with one or more images in response to one of a user ID of the
image requester (e.g. an ID related to a database for a movie broadcasting, and an
ID relates to a database for an image used in an advertisement, etc. col 10, lines

38-62), a location input (**e.g. distributor ID entry in the database including magazine title and page number for advertisement, col 10, lines 50-62**), a business relationship characteristic of the image requester (**e.g. advertiser and publisher, etc. col 9, lines 1-4**), a promotion type input (**e.g. advertisements including movie broadcasting, magazines, music an image for advertisement, etc. col 10, line 50 to col 11, line 23**), and a language input (**e.g. movie broadcast, sale of song, etc. must include a language input, col 10, line 50 to col 11, line 23 and col 11, lines 63-66**).

Regarding claim 4, in accordance with claim 1.

Alattar discloses wherein the database is adapted to selectively update the images and/or associated layers of metadata in response to vendor input (**e.g. in order to provide magazine title, page number content of song being sold, movie title, version number, etc. all these information must be provided through vendor's input, col 10, line 50 to col 11, line 23**).

Regarding claim 5, in accordance with 1.

Alattar discloses wherein the database is adapted to search the images and/or associated layers of metadata in response to one of a query input by a user, a user ID of the image requestor, a location, a business relationship, a promotion type, and a language input (**e.g. database used for advertisement implies that database is adapted to search images, input from user, ID, location, relationship promotion type and language, and so on; col 10, lines 50-62**).

Regarding claim 6.

Claim 6 recites identical features as claim 1, except claim 6 is a method claim. Thus, arguments similar to that presented above for claim 1 are also equally applicable to claim 6.

Regarding claim 7, in accordance with claim 6.

Alattar discloses wherein selecting an advertising image further comprises selecting an advertising image in response to a query by one of an advertiser and a publisher (**e.g. one must selects an advertising item, e.g., selecting a movie to be broadcasted or selecting a song to be purchased, col 11, line 61 through col 12, line 9**).

Regarding claim 8, in accordance with claim 6.

Alattar discloses wherein selecting two or more layers of metadata associated with the selected image further comprises selecting two or more pre-generated layers of metadata associated with the selected image (**e.g. metadata included or pre-generated with creator/owner, title, content description, etc. is associated with a database, col 11, lines 5-23**).

Regarding claim 9, in accordance with claim 6.

Alattar discloses wherein selecting two or more layers of metadata associated with the selected image further comprises selecting two or more dynamically generated layers of metadata (**e.g. watermark layers include or encoded dynamically with different metadata data becoming a metadata layer with watermarking, col 8, lines 13-20**).

Regarding claim 10, in accordance with claim 9.

Alattar discloses selecting two or more dynamically generated layers of metadata

further comprises selecting two or more dynamically generated layers of metadata

utilizing one of a user ID of an image requestor, a location input, a business relationship

characteristic of an image requestor, a promotion type, and a language type (**e.g.**

database used for advertisement implies that database is adapted to search

images, input from user, ID, location, relationship promotion type and language,

and so on; col 10, lines 50-62 & news broadcasting must contain dynamically

generated layers of metadata, col 12, lines 36-63).

Regarding claim 11, in accordance with claim 6.

Claim 11 recites identical features as claim 4, except claim 11 is a method claim.

Thus, arguments similar to that presented above for claim 4 are also equally applicable

to claim 11.

Regarding claim 12.

Claim 12 recites identical features as claim 1, except claim 12 is a method claim.

Thus, arguments similar to that presented above for claim 1 are also equally applicable

to claim 12.

Regarding claim 13, in accordance with claim 12.

Alattar discloses wherein selecting an advertising image and two or more layers

of metadata associated with the selected image from the advertising image repository

further comprises selecting an advertising image and two or more layers of pro-

generated metadata associated with the selected image from the advertising image

repository (**e.g. selling items through web in that an image must link to an image repository, col 10, lines 50-62**).

Regarding claim 14, in accordance with claim 12.

Alattar discloses wherein selecting an advertising image and two or more layers of metadata associated with the selected image from the advertising image repository further comprises selecting an advertising image and two or more layers of dynamically generated metadata associated with the selected image from the advertising image repository (**e.g. watermark layers include or encoded dynamically with different metadata data becoming a metadata layer with watermarking, col 8, lines 13-20**).

Regarding claim 15, in accordance with claim 14.

Claim 15 recites identical features as claim 10. Thus, arguments similar to that presented above for claim 10 are also equally applicable to claim 15.

Regarding claim 16, in accordance with claim 12.

Claim 16 recites identical features as claim 4, except that claim 16 is a computer-readable medium claim. Thus, arguments similar to that presented above for claim 4 are also equally applicable to claim 16.

Regarding claim 17.

Claim 17 recites identical features as claim 1, except that claim 17 is a method claim. Thus, arguments similar to that presented above for claim 1 are also equally applicable to claim 17.

Regarding claim 18, in accordance with claim 17.

Alattar discloses wherein selecting an image from a repository further comprises selecting an advertising image from a database (**e.g. Alattar et al discloses number of examples of advertisement like broadcasting movies, on-line retail stores selling songs, date/time and version of image, etc. all these items or images are selectable, col 11, lines 59-67**).

Regarding claim 19, in accordance with claim 17.

Claim 19 recites identical features as claim 8, except that claim 19 is a method claim. Thus, arguments similar to that presented above for claim 8 are also equally applicable to claim 19.

Regarding claim 20, in accordance with claim 17.

Claim 20 recites identical features as claim 9, except that claim 20 is a method claim. Thus, arguments similar to that presented above for claim 9 are also equally applicable to claim 20.

Conclusion

10.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Kau whose telephone number is 571-270-1120 and fax number is 571-270-2120. The examiner can normally be reached on M-F, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on 571-272-7434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/S Kau/
Examiner, Art Unit 2625
10/15/2008

/David K Moore/

Supervisory Patent Examiner, Art Unit 2625